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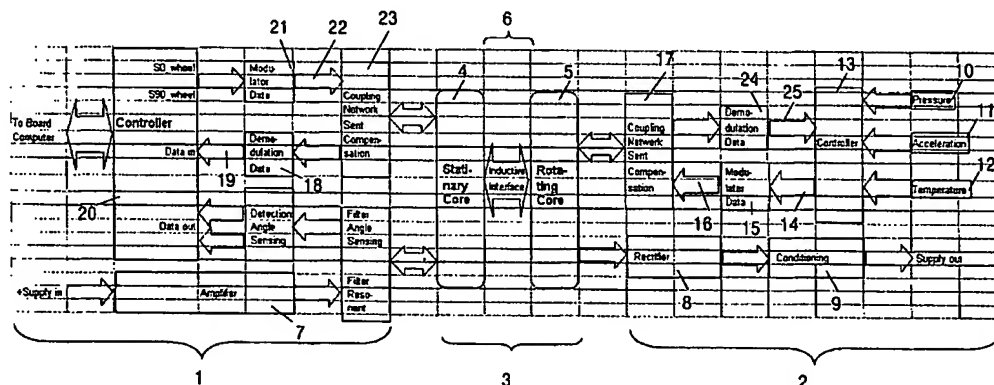
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(54) Title: UNIDIRECTIONAL POWER AND BI-DIRECTIONAL DATA TRANSFER OVER A SINGLE INDUCTIVE COUPLING



(57) Abstract: The present invention provides an inductive transmission system for inductive transmission of power and full duplex data signals between a first device (1) and a second device (2). The transmission system comprises: - a bi-directional inductive channel (6) between the first device (1) and the second device (2), - first transmission means (121) for transmitting a power signal at a first frequency from the first device (1) to the second device (2) over the inductive channel (6) - a first modulating device (21) for modulating a first data signal at a first modulation frequency, - a second modulating device (15) for modulating a second data signal at a second modulation frequency, - second transmission means (124) for transmitting the modulated first data signals from the first device (1) to the second device (2) over the inductive channel (6), and for transmitting the modulated second data signals from the second device (2) to the first device (1) over the inductive channel (6), wherein the first modulation frequency and the second modulation frequency are at least a factor two apart, and wherein the transmission system furthermore comprises signal cancellation means or compensation circuit for compensating for the sent data signal, providing a full duplex path without interference from the own sent signals at a device side.

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